



NOS Helping NOAA Serve the Nation

as a Global Leader in Integrated Management of the Ocean

THE LAST YEAR was marked by the release of two key ocean-policy documents: the U.S. Commission on Ocean Policy released its Final Report and, in response to the Commission's recommendations, the White House announced the U.S. Ocean Action Plan. These documents provide recommendations that address the broad range of issues impacting the nation's coastal and ocean resources, provide a framework for ocean governance, and move the nation towards a more coordinated and comprehensive national ocean policy.

NOAA's National Ocean Service (NOS) is well positioned to play a major role in implementing many of these recommendations. NOS's programs cover a broad range of scientific, technical, and management activities. Its capabilities include applied ocean research; operational monitoring of the physical, chemical, and biological parameters of the ocean environment; charting the nation's coasts and waterways; building and maintaining the nation's geodetic control system; and providing states with financial and technical assistance to build local management capacity. NOS also responds to and restores damage from environmental accidents, provides balanced protection for some of the nation's most valuable coastal and ocean resources, and works with foreign partners to share mutually-beneficial approaches and technology.

NOS is leading efforts in the development of integrated ocean observation and modeling systems, providing new and innovative navigation products and services, and advancing marine resource conservation and assessment through its ocean and coastal management programs. NOS is also using a variety of creative communication approaches to engage and educate the public about the importance of balancing the environmental and economic well-being of the nation's coastal resources and communities.

A NEW CHALLENGE FOR THE NATIONAL OCEAN SERVICE

To respond to this new prescription for ocean governance, NOS has challenged itself to help NOAA to be a Global Leader in Integrated Management of the Ocean. NOS developed this challenge in support of the agency's view that the ocean stewardship community is converging in its recognition of the urgency of ocean and coastal problems. To this end, the challenge provides a focus for NOS to apply its diverse resources to proactively address the mounting pressures impacting coastal and ocean resources.

The NOS challenge supports the larger NOAA vision, "To move NOAA into the 21st Century scientifically and operationally, in the same interrelated manner as the environment that we observe and forecast, while recognizing the link between the global economy and our planet's environment," and provides a foundation for delivering upon the four NOAA mission goals, which are to:

- *protect, restore and manage the use of coastal and ocean resources through ecosystem-based management;*
- *understand climate variability and change to enhance society's ability to plan and respond;*
- *serve society's needs for weather and water information; and*
- *support the nation's commerce with information for safe, efficient, and environmentally sound transportation.*



DEFINING KEY TERMS

A first step in conveying the challenge to NOS constituents and its employees has been to define what NOS understands the important terms in the statement to mean. Thus, by:

GLOBAL, we mean NOS and NOAA...

...employees are recognized for world- class expertise;
...is global in influence and impact;
...actively seeks opportunities to work collaboratively with other nations;
...undertakes work that is global in geographic scope;
...is a proactive participant in international ocean policy formulation and governance; and
...is committed to learning from international partners.

LEADERSHIP, we mean NOS and NOAA...

...provides a challenging vision for the future of ocean stewardship;
...leads by doing — creating tools, sharing information and knowledge, building partnerships;
...attracts followers to its vision;
...identifies emerging issues in ocean management;
...is innovative and creative in developing solutions;
...provides financial and human resources when needed; and
...empowers public and private users.

INTEGRATED MANAGEMENT, we mean NOS and NOAA...

...promotes, through its products and services, balanced decisions on ocean stewardship through a continuous, interactive, and adaptive process that engages all stakeholders and considers the full range of issues and concerns.

OCEAN, we mean NOS and NOAA...

...focuses primarily on coastal watersheds, estuaries, and ocean waters of the U.S. Exclusive Economic Zone (EEZ), and secondarily on upland areas and the blue waters of the deep ocean.

PRIORITY THEMES

In developing the challenge, NOS identified six themes around which to coordinate efforts to support execution of the U.S. Ocean Action Plan. These themes play to NOS's and NOAA's strengths, address many of the ocean community's most pressing issues, and will most quickly advance NOAA's contribution to the U.S. Ocean Action Plan and the Ocean Commission recommendations. Building upon the interdependencies among these six themes ...

NOS will help NOAA realize its vision through OBSERVATIONS, MODELING, and support for COASTAL COMMUNITIES, by employing innovative TECHNOLOGY, engaging in beneficial PARTNERSHIPS, and maintaining an EXPERT WORK-FORCE.

OBSERVATIONS

NOS will help NOAA be a global leader in designing and implementing an Integrated Ocean Observing System (IOOS), incorporating both in situ and remotely sensed measurements that provide valuable information for protecting and managing ocean and coastal resources.

MODELING

NOS will help NOAA be a global leader in applying existing models, and developing new ones, to forecast ocean and coastal conditions to meet the needs of resource managers and commercial and recreational users.

COASTAL COMMUNITIES

NOS will help NOAA be a global leader in providing technical and financial assistance, products, services, and expertise to coastal communities seeking balanced ocean and coastal resource management decisions, and in actively promoting the value of a watershed- and ecosystem-based approach to management.

TECHNOLOGY

NOS will help NOAA be a global leader in identifying, tracking, applying, and promoting the use of existing, new, and emerging technologies that enhance our ability to understand ocean and coastal ecosystems and result in more effective management of these resources.

PARTNERSHIPS

NOS will help NOAA be a global leader in forging partnerships across all stakeholder sectors in the ocean community — including government, academia, private sector, nongovernmental organizations, international partners, and private citizens — to maximize the impact of individual efforts and ensure resource management decisions are made in an integrated manner.

EXPERT WORKFORCE

People are the foundation of NOAA's success. Therefore, NOS will continue to invest in training and career enhancement, offering opportunities for NOS staff to lead at all levels in the ocean community.

CONVERTING THE CHALLENGE INTO ACTION

NOS will use its programmatic diversity to develop and deliver integrated products and services that advance the U.S. Ocean Action Plan and U.S. Commission on Ocean Policy recommendations. The seven NOS Program Offices and two Staff Offices have identified more than 40 existing projects that exemplify one or more of the key terms of the challenge, and reflect one or more of the six priority themes. A sampling of these activities include: developing Automated Underwater Vehicle (AUV) technology for shallow-water hydrography; supporting sensor fusion approaches (combining Light Detection and Ranging (LIDAR), digital photography, and hyperspectral imaging); building operational forecasting systems for harmful algal blooms; launching a comprehensive maritime heritage program; and working with EPA and local coastal communities in three different coastal regions to promote redevelopment of contaminated port and harbor areas under the Portfields Initiative.

NOS will also lead new initiatives that drive programmatic integration and address key needs within the ocean community. NOS will fund two competitively-selected projects to promote the development of integrated ocean observations systems and their practical application to coastal management decision-making. These projects will work toward demonstrating the socio-economic value, wherever possible, of integrated ocean observations in the management of current coastal issues in the Gulf of Mexico region. The first project will work to improve marine transportation safety and storm surge and related coastal flooding warning and response. The second project will advance the monitoring and forecasting of harmful algal blooms to benefit public health and coastal economies.

NOS also plans to develop a compatible watershed/ocean spatial framework to support both scientific and ocean management analyses, and sponsor a series of ocean technology showcases, topical workshops, and international technology symposiums to promote the use of existing, new, and emerging technologies.

Working to be a Global Leader in Integrated Management of the Ocean has to be more than a slogan. NOS continues to explore among constituents and senior staff how best to integrate these and other activities into a more comprehensive approach to providing the best possible products and services to the ocean community.